

**ENALLAGMA CAPUTAVIS SPEC. NOV.
AND OTHER ODONATE RECORDS FROM ETHIOPIA
(ZYGOPTERA: COENAGRIONIDAE)**

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The new sp. is described from 2 ♂ (holotype ♂: Ethiopia, Shewa, Camp Awash, Awash National Park; 13-IV-1971; deposited at 'La Specola'). Also provided is a list of 13 spp., collected in 1939 and 1971, including 4 spp. not known previously from Ethiopia, viz. *Pseudagrion sjoestedti jacksoni* Pinhey, 1961, *Macromia picta* Hagen, 1871, *Bradinopyga cornuta* Ris, 1911 and *Zygonyx n. natalensis* (Martin, 1900).

INTRODUCTION

A reorganization of the odonate collections of the 'La Specola' Zoological Museum of the University of Florence brought to light 25 specimens from Ethiopia, two of which were collected in 1939 by L. Cipriani and the remainder in 1971 by members of a mission headed by Prof. B. Lanza in the Awash National Park (LANZA, 1972).

This material is interesting because data on Ethiopian Odonata are relatively scarce, particularly for the last few decades.

PINHEY did not include Ethiopia and Somalia in his work (1961) on East African Odonata which gives only a few data on these two countries. CONSIGLIO (1978) gives a checklist of the Ethiopian Zygoptera and PINHEY (1982) a checklist of the Ethiopian and Somalian Anisoptera. CARFI & TERZANI (1993) list some species collected in Gojam (Ethiopia).

SITES VISITED

L. Cipriani collected at Welo; E. Granchi, M.L. Azzaroli and B. Lanza at Shewa.

W e l o: (1) Dese, II-1939; – S h e w a: (2) Camp Awash, Awash National Park, 8/17-IV-1971; – (3) Awash Falls, Awash National Park, 9-IV-1971; – (4) Hot Springs, Awash National Park, 10-IV-1971; – (5) Addis Abeba, 23-IV-1971.

SPECIES LIST

The species marked with asterisk (*) are new for Ethiopia. The specimens are deposited at Museo Zoologico dell'Università di Firenze (= MZUF).

	Collecting site	MZUF No.
COENAGRIONIDAE		
<i>Enallagma caputavis</i> sp. n.	2	3389-3390
<i>Pseudagrion acaciae</i> Förster, 1906	2	2067
* <i>Pseudagrion sjoestedti jacksoni</i> Pinhey, 1961	1	3387
CHLOROCYPHIDAE		
<i>Platycypha c. caligata</i> (Sélys, 1853)	2	2071
AESHNIDAE		
<i>Aeshna r. rileyi</i> Calvert, 1892	5	2075
CORDULIIDAE		
* <i>Macromia picta</i> Hagen in Sélys, 1871	2	2072
LIBELLULIDAE		
<i>Brachythemis lacustris</i> (Kirby, 1889)	2	2068
* <i>Bradinopyga cornuta</i> Ris, 1911	3	3388
<i>Diplacodes lefebvrei</i> (Rambur, 1842)	4	2073
<i>Nesciothemis farinosa</i> (Förster, 1898)	3	2069
<i>Orthetrum c. chryso stigma</i> (Burmeister, 1839)	3	2070
<i>Trithemis a. annulata</i> (Palisot de Beauvois, 1805)	2	2065
<i>Trithemis a. arteriosa</i> (Burmeister, 1839)	2	2066
* <i>Zygonyx n. natalensis</i> (Martin, 1900)	2	2074

ENALLAGMA CAPUTAVIS SP. NOV.

Figures 1-5

M a t e r i a l. – **Holotype** ♂: Ethiopia: Shewa, Camp Awash, Awash National Park, 13-IV-1971, B. Lanza leg. MZUF No. 3389; **Paratype** ♂, same data, MZUF No. 3390.

E t y m o l o g y. – The species is named for the form of its cerci which, seen laterally, greatly resemble a bird's head.

M A L E. – **Holotype**. H e a d. – Labium yellow; labrum orange with a very narrow ochre-yellow stripe anteriorly; anteclypeus, postclypeus, frons and vertex reddish-orange; postocular spots greyish-brown surrounded by a discontinuous thin black line which joins at the center of the occiput to form a flattened "x", much wider

than it is high. – Antennae: first two joints fairly stout, reddish orange; remaining joints thin, dark brown.

T h o r a x. – Prothorax (Fig. 1) very pruinose, brown; median lobe surrounded by a black line; anterior lobe convex with a broad raised anterior lip and posterior swelling; median lobe concave; posterior lobe convex with a narrower raised lip. – Pterothorax amber-orange, lighter and very pruinose ventrally; dorsal carina and humeral suture each with a black line; that on the latter widens posteriorly into a black spot.

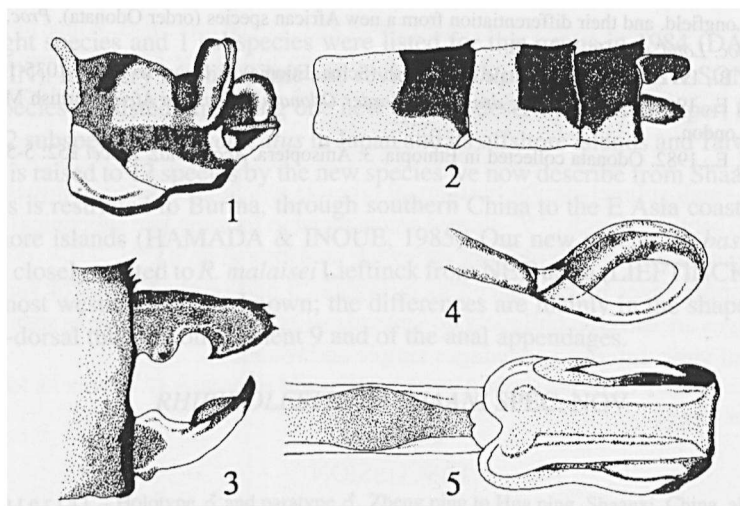
Legs. – Ochre-yellow, femurs striped longitudinally with a thin black line present both anteriorly and posteriorly. Femurs and tarsi spiny. Femurs slightly pruinose.

Wings. – Faintly smoky, nervatures dark brown, pterostigma rhomboid and reddish brown framed by a thin ochre-yellow line; px fw: 9-10; px hw: 9

A b d o m e n. – Segment I ochre-yellow dorsally, bordered with black bars laterally; segments II-VII dark brown with a black dorsal stripe which widens at the base to contain a yellowish ring which is fairly wide on segment II, narrower on segments III-VII; segments VIII-IX (Fig. 2) bluish with a black dorsal spot on the distal third; segment X black dorsally, bordered laterally with a bluish color similar to that of the preceding two segments. Cerci (Fig. 3) blackish, the inferior lamina triangular, concave like a spoon, yellow at the base and darkening to blackish at the apex. The penis (Figs 4-5) distally forms a rather flattened elliptical ring.

M e a s u r e m e n t s (mm): total length including cerci 38.8; – abdomen 30.3; – hindwing 20.0.

MALE. – **Paratype.** – The first two measurements are approximate because the abdomen is compressed and deformed, so much so that the spatial placement of



Figs 1-5. *Enallagma caputavis* sp. n. – (Figs 1-2) Paratype ♂: (1) prothorax, lateral view; – (2) Terminal abdominal segments 8-10, lateral view. – (Figs 3-5) Holotype ♂: (3) caudal appendages, lateral view; – (4) terminal segment of penis, lateral view; – (5) penis, ventral view.

the cerci and subanal lamina is altered; nonetheless these are perfectly recognizable when observed singularly. The colors are clearer. Wings: px fw: 9; px hw: 9.

M e a s u r e m e n t s (mm): total length including cerci 39.0; – abdomen 31.8; – hindwing 20.0.

AFFINITIES. – PINHEY's (1961) key shows the similarity of *E. caputavis* with *E. longfieldae* Fraser. FRASER's (1947) general description and illustrations of the latter species reveal substantial differences between it and *E. caputavis* in both body color and shape of the distal upper appendages. The two species are differentiated as follows:

- body generally blue; distal part of the upper appendages appearing triangular when viewed laterally; lower appendages quadrangular with spiny superior processes *longfieldae*
- body yellowish-red except for the last three abdominal segments which are bluish; distal part of the upper appendages appearing almost circular when viewed laterally; lower appendages triangular with evident spiny processes *caputavis*

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REFERENCES

- CARFÌ, S. & F. TERZANI, 1993. Some dragonflies from Gojam, Ethiopia. *Notul. odonotol.* 4(1): 15-16.
- CONSIGLIO, C., 1978. Odonata collected in Ethiopia by the expeditions of the Accademia Nazionale dei Lincei. 1. Introduction and the Zygoptera. *Accad. naz. Lincei* 243: 27-51.
- FRASER, F.C., 1947. The synonymy of *Enallagma elongatum* (Martin) and *E. pseudelongatum* Longfield, and their differentiation from a new African species (order Odonata). *Proc. R. ent. Soc. Lond. (B)* 16: 143-148.
- LANZA, B., 1972. Il Parco Nazionale dell' Auash (Scioa, Etiopia). *L'Universo* 52(5): 1035-1070.
- PINHEY, E., 1961. *A survey of the dragonflies (order Odonata) of eastern Africa*. British Museum, London.
- PINHEY, E., 1982. Odonata collected in Ethiopia. 3. Anisoptera. *Accad. naz. Lincei* 252: 5-56.